

Title (en)
Process and apparatus for biological treatment of aqueous organic wastes

Title (de)
Verfahren und Vorrichtung zur biologischen Aufbereitung von wässrigen organischen Abfällen

Title (fr)
Procédé et dispositif pour le traitement biologique de déchets organiques aqueux

Publication
EP 0645347 B1 20000301 (EN)

Application
EP 94306914 A 19940921

Priority
JP 24008993 A 19930927

Abstract (en)
[origin: EP0645347A1] A process and an apparatus for an aerobic biological treatment of aqueous organic wastes, in which the aqueous organic waste is supplied to the aeration tank for an aerobic biological treatment in the presence of a biosludge composed essentially of aerobic microorganisms, the aerated aqueous suspension in the aeration tank (11) is subjected to solid/liquid separation, the so-separated liquid phase is exhausted as the treated water, at least a portion of the separated sludge is recycled (20,14) to the aeration tank (11), a part of the aqueous suspension in the aeration tank (33) or of the separated sludge is treated with ozone (31) at a pH of 5 or lower, and the ozonized suspension or sludge is recycled (37) to the step of aerobic biological treatment, whereby the biosludge is transformed into BOD components using a decreased amount of ozone to thereby decrease the amount of excess sludge and, in some cases, even to zero. <IMAGE>

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Cited by
EP1905744A1; GB2298195B; EP1905743A1; CN102219326A; EP0960860A1; EP0887314A3; FR2766813A1; CN111732182A; FR2916754A1; EP2354096A1; ITMI20100187A1; US5851399A; CN114768162A; EP0936190A1; FR2774980A1; CN109678305A; CN111423009A; EP0881195A4; JP2016077933A; US9738549B2; WO202088034A1; EP0887314A2; WO2008042761A1; WO2008042751A1; WO2008042769A1; WO2020191446A1; WO9609987A3; WO9906327A1; US7309432B1; US7695622B2; US7476319B2; US7513999B2; US7699980B2; US7699986B2; US6337020B1; USRE40565E; JP2001512046A

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